

## A New Genus and Species of Horse Fly (Diptera: Tabanidae) from Bolivia<sup>1</sup>

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The following description of a new genus and species presents another example of the continuing discovery of neotropical horse fly diversity. It indicates to me the high potential of finding many more unstudied higher taxa in this part of the world. It is with reluctance that I would describe a new species from a single specimen, let alone a new genus, but in this case it is quite clear that the species is distinct and requires generic status.

### *Roquezia* Wilkerson, NEW GENUS (Tabanidae: Tabaninae: Diachlorini)

*Diagnosis.*—Frons relatively wide, convergent below. Basal callus square and protuberant, not touching sides of frons. Eyes bare. A slightly raised tubercle at vertex bears 3 small ocelli. Antennal basal plate slender, dorsally bluntly rounded, style 4 annulate. Palpus short, greatly inflated but sharply pointed. Scutum pale gray and dark brown striped. Wings glass-clear, venation normal, vein  $R_{4+5}$  with a short appendix. Basicosta without macrotricheae (bare). Abdomen above blackish brown with a series of large sublateral pale gray spots on tergites 3-6. Tergites 1 and 2 largely gray pollinose.

The overall impression is of a muscoid fly.

*Type of genus.*—*Roquezia signifera* Wilkerson, new species.

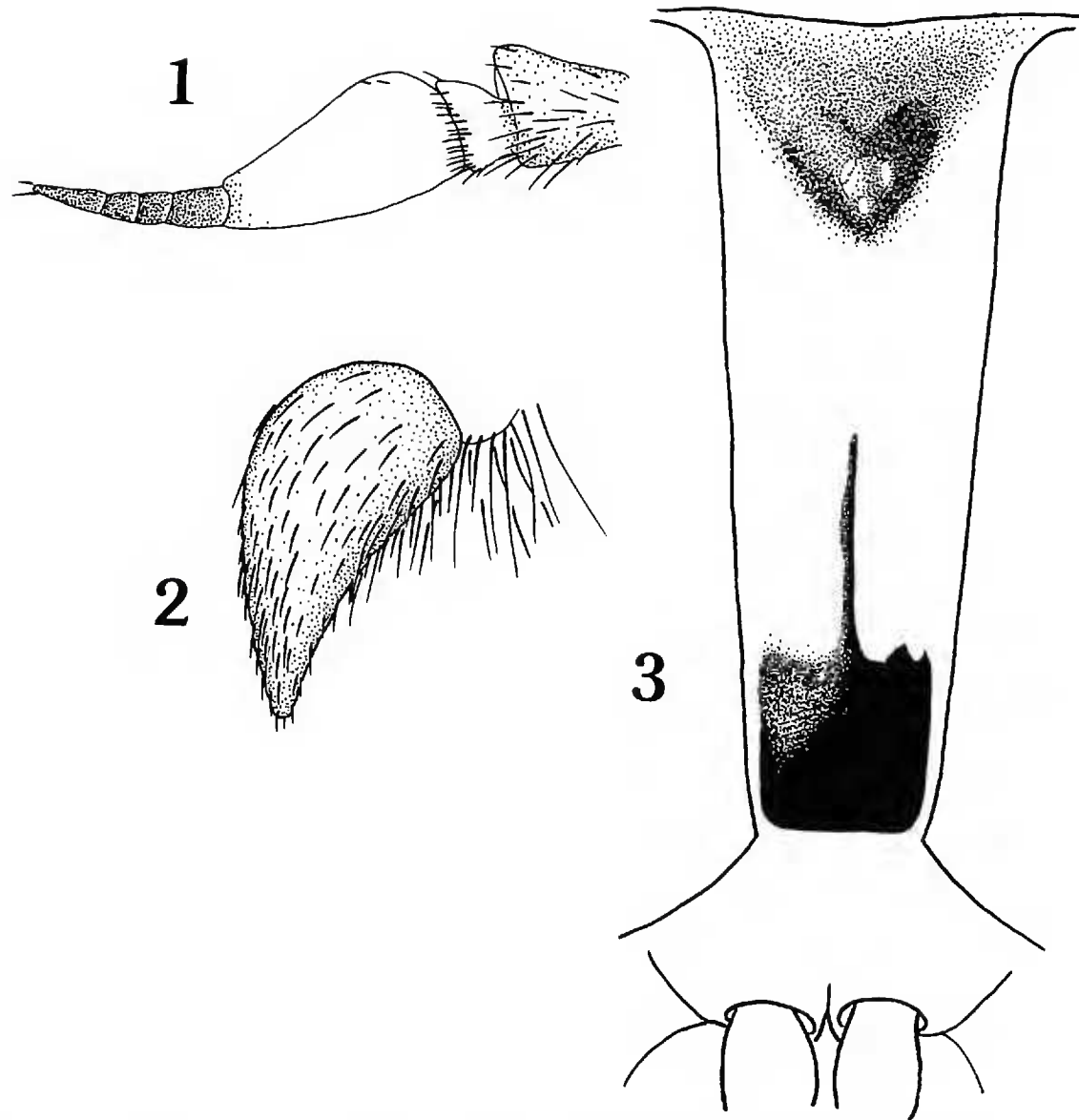
*Etymology.*—Named for Roberto Vasquez C., Bolivian botanist and generous host during my visits to Bolivia.

### *Roquezia signifera* Wilkerson, NEW SPECIES (Figs. 1-4)

*Diagnosis.*—A small muscoid appearing dark brown and pale gray species with shiny square basal callus, small but distinct ocellar tubercle and short, swollen, pointed palpi. Scutum pale gray striped, wing glass-clear and legs black. Abdomen above with large pale gray sublateral spots except on tergite 2 which, except for a median dark brown triangle is entirely pale gray.

*Female.*—Length: body 8 mm; of wing 9 mm. Head structures in Figures 1-3. Frontal index 5.0. Frons narrowed below, width at vertex/width at base = 1.7. Frons, subcallus, gena, frontoclypeus and postocciput pale gray pollinose with a faint yellowish tint. Vertex darkened, area around the tubercle shiny black; dorsal to this shiny area integument dark and sparsely dark brown pollinose. Frontal

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Figures 1-3. Head structures of female *Roquezia signifera* Wilkerson, new species. 1, Antenna. 2, Palp. 3, Frons.

hairs mostly black, short and sparse; those at vertex longer and more numerous; those on lower  $\frac{1}{2}$  of frons quite sparse and pale. Ocellar tubercle small and slightly raised bearing 3 small yellowish brown ocelli. Ocelli seem to be covered by pollinosity and are not protuberant. Eyes bare, color and pattern not recorded. Basal callus a protuberant shiny black square with a slender upward extension. Subcallus with small sublateral bare spots, apparently the result of rubbing. Numerous short pale yellow hairs present on gena, less dense laterally on frontoclypeus. Beard of numerous short pale yellow hairs. Antenna pale reddish brown, the annuli darker brown; antennal hairs black. Second palpal segment short, much swollen basally but apically acutely pointed; integument pale yellowish brown, sparsely pale gray pollinose and black haired except for a few pale hairs beneath. Proboscis short, wholly fleshy and black. In this specimen it is retracted but stylets are short and reach only to tip of palpus. Labella about as long as palpus.

Scutum and scutellum as in Figure 4. Pale areas of scutum pale gray pollinose, the dark areas with a dark brown integument covered with sparse dark brown pollinosity. Scutellum blackish brown. Scutal hairs short, sparse and black; hairs of scutellum also sparse and black but longer. Pleura, and mid and hind coxae, blackish brown overlain with sparse pale gray pollinosity. Pleural hairs short, sparse and black; those below wing base longer. A small clump of yellow hairs

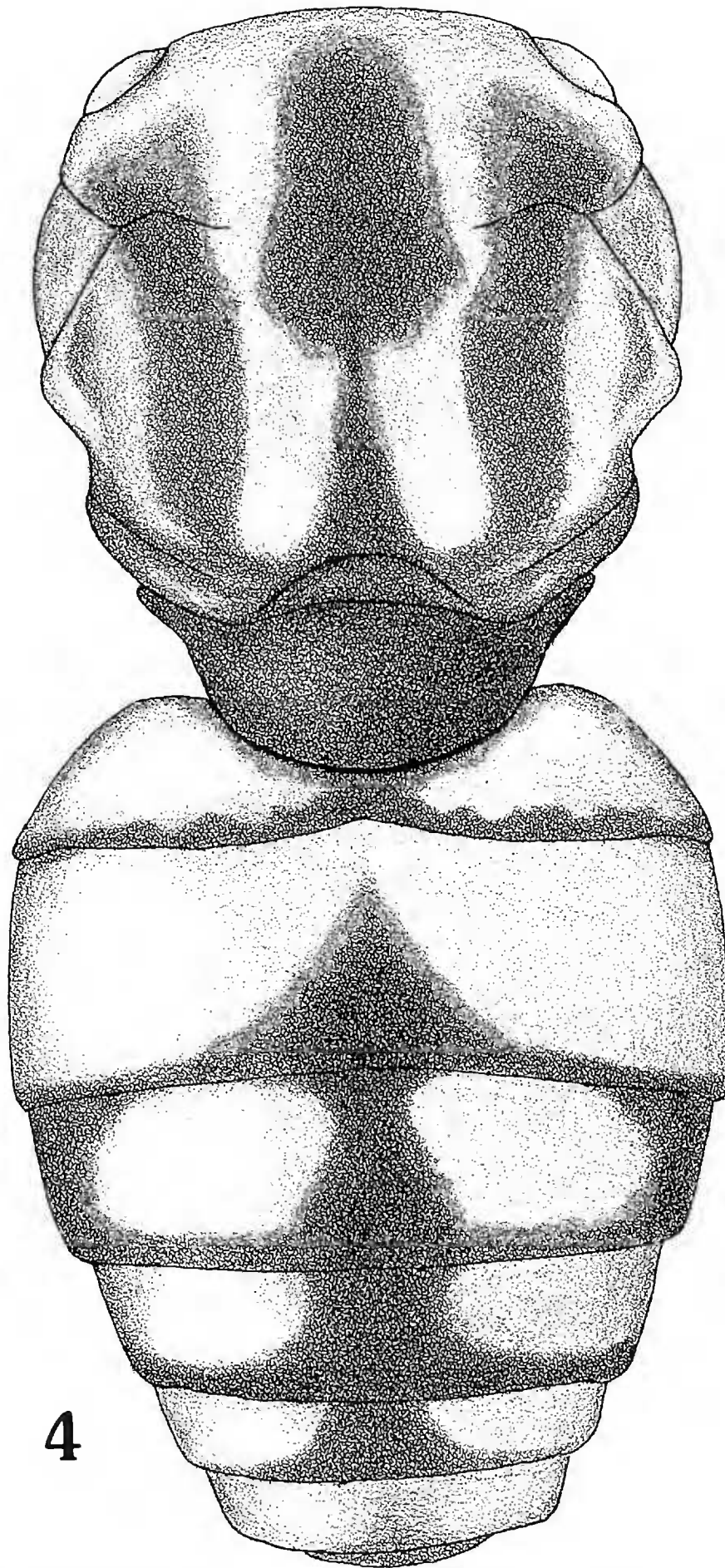


Figure 4. *Roquezia signifera* Wilkerson, new species. Dorsal view of thorax and abdomen.

present in front of wing base. Fore coxae mostly pale yellowish gray pollinose and pale yellow haired. Legs black and black haired. Wing including costal cell glass-clear, venation normal;  $R_{4+5}$  (fork of 3rd vein) with a short appendix. Basicosta bare. Squamae pale, with a fringe of white hairs. Halteres brown but tip of knob yellow.

Abdominal dorsum as in Figure 4, dark areas blackish brown, pale areas pale silvery gray pollinose. Dorsum wholly sparsely short black haired. Venter dark blackish brown in ground color, pale bluish gray pollinose and wholly short black haired.

*Male*.—Not known.

*Type*.—Holotype female, Santa Cruz Department, Bolivia, 10 km E Warnes, 22-VIII-1983, R. Wilkerson coll. To be deposited in the Florida State Collection of Arthropods, Gainesville, Florida.

*Etymology*.—Signifera is from the Latin meaning bearing marks, figures or signs.

*Discussion*.—Tribe Diachlorini (Tabaninae, Tabanidae) remains a confusing group of genera and subgenera whose relationships are not yet understood (Fairchild, 1969). The tribe comprises more than half of the neotropical species of Tabanidae and is united, perhaps artificially, by the following: "Basicosta smoothly pollinose, without setae. If setae are present, sparse or numerous, and there are vestiges of ocelli, a strong tubercle at vertex, labella partly sclerotized, a long tooth on third antennal segment, wings strongly patterned or other striking specializations" (Fairchild, 1969).

*Roquezia* belongs in this assemblage by virtue of its bare basicosta. Several species or species groups in Diachlorini superficially resemble *Roquezia* because of their muscoid fly appearance (mimicry?). *Stypommisa marucii* (Fairchild) and most *Philipotabanus* (*Mimotabanus*) Fairchild differ by having a clavate callus and elongated palpi. In addition they have bluish pruinosity on the first 2 abdominal segments and *P. Mimotabanus* has a patterned wing. *Myiotabanus* Lutz differs by having a longer proboscis, partly sclerotized labella, partially bare subcallus, a large ovoid basal callus, no vestiges of ocelli and short stubby antennae. *Eutabanus pictus* Kröber differs by having protuberant and conical notopleural lobes, inflated fore tibiae, flattened hind tibiae, broad divergent frons, large drop-shaped callus and a small discal wing band.

*Roquezia* seems to be most closely related structurally to *Stenotabanus* Lutz, many species of which have glass-clear wings, short fleshy labella, short, basally swollen palpi, similar antennae, vestiges of ocelli, frons convergent below, and protuberant square basal callus, sometimes with a thin dorsal extension.

*Roquezia*, however, differs in 2 significant ways from any *Stenotabanus* known to me. First, the frons differs by having a basal callus that does not touch the sides of the frons and there is no median darkened area on the frons evident in most *St.* (*Stenotabanus*). Secondly, no *Stenotabanus* seen has a thoracic and/or abdominal pattern similar to *Roquezia*.

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#### LITERATURE CITED

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